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(Currently Amended) 47. The wavelength-selective optical transmission system of claim 46 wherein:

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a first waveguide for transmitting a multiplexed optical signal therethrough;

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a second waveguide coupled to said first waveguide wherein at least one of said first and second waveguides having a set of wavelength-selective Bragg gratings disposed near a coupling section between said first and second waveguides wherein said first and second waveguides having different propagation constants; and

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said first waveguide having a SiO<sub>2</sub> cladding and a doped SiO<sub>2</sub> core and said second waveguide have a SiO<sub>2</sub> cladding and a SiRN core.

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(Currently Amended) 48. The wavelength-selective optical transmission system of claim 46 47 wherein:

said first waveguide having a SiO<sub>2</sub> cladding and a doped SiO<sub>2</sub> core and said second waveguide have a SiO<sub>2</sub> cladding and a Si core.

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(Currently Amended) 49. The wavelength-selective optical transmission system of claim 46 47 wherein:

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said first waveguide having a SiO<sub>2</sub> cladding and a doped SiO<sub>2</sub> core and said second waveguide have a SiO<sub>2</sub> cladding and a SiO<sub>x</sub>N<sub>y</sub> core.